

AMENDMENTS TO THE CLAIMSLISTING OF CLAIMS

This listing of Claims will replace all prior versions, and listings, of Claims in the application:

Claim 1. (Currently Amended) A transmission apparatus for converting digital data into a packet and transmitting said packet-converted digital data, said transmission apparatus comprising:

inserting means for inserting random data having an arbitrary data length into a part of said packet-converted digital data to be transmitted, wherein said random data having said arbitrary data length includes first random data having a first arbitrary data length and second random data having a second arbitrary data length different than said first arbitrary data length, and said inserting means inserts said first random data at a beginning portion of said packet-converted digital data and said second random data at an end portion of said packet-converted digital data;

encryption means for encrypting said packet-converted digital data including said random data having said arbitrary data length inserted by said insertion means; and

transmission means for transmitting said digital data encrypted by said encryption means.

Claim 2. (Previously Presented) The transmission apparatus according to Claim 1, wherein said transmission means transmits said encrypted digital data by radio or wire communication.

Claim 3. (Previously Presented) The transmission apparatus according to Claim 1, wherein said transmission means transmits said encrypted digital data as data to be recorded onto a recording medium.

Claim 4. (Previously Presented) The transmission apparatus according to Claim 1, wherein said insertion means inserts said random data into an invalid-data portion existing in said packet.

Claim 5. (Previously Presented) The transmission apparatus according to Claim 1, wherein a length of an encryption unit encrypted by said encryption means is smaller than a length of said packet-converted digital data.

Claim 6. (Previously Presented) The transmission apparatus according to Claim 5, wherein said insertion means inserts said random data into said encryption unit.

Claims 7-12. (Cancelled).

Claim 13 (Currently Amended). A transmission method for

converting digital data into a packet and transmitting said packet-converted digital data, said transmission method comprising the steps of:

inserting random data having an arbitrary data length into a part of said packet-converted digital data to be transmitted, wherein said random data having said arbitrary data length includes first random data having a first arbitrary data length and second random data having a second arbitrary data length different than said first arbitrary data length, and said inserting step inserts said first random data at a beginning portion of said packet-converted digital data and said second random data at an end portion of said packet-converted digital data;

encrypting said packet-converted digital data including said inserted random data having said arbitrary data length; and  
transmitting said encrypted digital data.

Claim 14. (Previously Presented) The transmission method according to Claim 13, wherein a length of an encryption unit to be encrypted is smaller than a length of said packet-converted digital data and said random data is inserted into said encryption unit.

Claims 15-16. (Cancelled).

Claim 17. (Currently Amended) A transmission apparatus for encrypting a program comprising a continuous data stream and transmitting said encrypted program, said transmission apparatus comprising:

random-data-generating means for generating random data having an arbitrary data length;

addition means for adding said random data having said arbitrary data length generated by said random-data-generating means to ~~a beginning and an end of said program, wherein said~~ random data having said arbitrary data length includes first random data having a first arbitrary data length and second random data having a second arbitrary data length different than said first arbitrary data length, and said addition means adds said first random data at a beginning portion of said packet-converted digital data and said second random data at an end portion of said packet-converted digital data;

encryption-processing means for encrypting said program including said random data having said arbitrary data length added thereto by said addition means; and

transmission means for transmitting said program encrypted by said encryption-processing means.

Claim 18. (Previously Presented) The transmission apparatus according to Claim 17, wherein said transmission means transmits said encrypted digital data by radio or wire

communication.

Claim 19. (Previously Presented) The transmission apparatus according to Claim 17, wherein said transmission means transmits said encrypted digital data as data to be recorded onto a recording medium.

Claims 20-24. (Cancelled).

Claim 25. (Currently Amended) A transmission method for encrypting a program comprising a continuous data stream and transmitting said encrypted program, said transmission method comprising the steps of:

generating random data having an arbitrary data length;

adding said generated random data having said arbitrary data length to ~~a beginning and an end of~~ said program, wherein said random data having said arbitrary data length includes first random data having a first arbitrary data length and second random data having a second arbitrary data length different than said first arbitrary data length, and said adding steps adds said first random data at a beginning portion of said packet-converted digital data and said second random data at an end portion of said packet-converted digital data;

encrypting said program including said added random data having said arbitrary data length; and

transmitting said encrypted program.

Claim 26. (Cancelled).

Claim 27. (Currently Amended) A transmission apparatus for encrypting a plurality of data blocks comprising main data and additional data and transmitting said encrypted data blocks, said transmission apparatus comprising:

additional-data-inserting means for carrying out processing to insert additional data into data blocks randomly selected from among a sequence of said data blocks composing a stream of said main data;

encryption means for encrypting said sequence of data blocks after said processing carried out by said additional-data-inserting means to insert said additional data; and

transmission means for transmitting said sequence of data blocks encrypted by said encryption means; and

random-data-inserting means for carrying out processing to insert random data having an arbitrary data length into selected ones of said data blocks, wherein said random data having said arbitrary data length includes first random data having a first arbitrary data length and second random data having a second arbitrary data length different than said first arbitrary data length, and said random-data-inserting means inserts said first

random data at a beginning portion of said selected ones of said data blocks and said second random data at an end portion of said selected ones of said data blocks, wherein

said encryption means encrypts said sequence of data blocks after said processing carried out by said additional-data-inserting means to insert said additional data and said processing carried out by said random-data-inserting means to insert said random data having said arbitrary data length.

Claims 28-30. (Cancelled)

Claim 31. (Previously Presented) The transmission apparatus according to Claim 27, wherein said random-data-inserting means inserts random data into an invalid-data portion within each said selected ones of said data blocks.

Claim 32. (Previously Presented) The transmission apparatus according to Claim 27, wherein said transmission means transmits said sequence of data blocks by radio or wire communication.

Claim 33. (Previously Presented) The transmission apparatus according to Claim 27, wherein said transmission means transmits said sequence of data blocks as data to be recorded onto a recording medium.

Claim 34. (Currently Amended) A transmission method for encrypting a plurality of data blocks comprising main data and additional data and transmitting said encrypted data blocks, said transmission method comprising the steps of:

carrying out processing to insert additional data into data blocks randomly selected from among a sequence of said data blocks composing a stream of said main data;

encrypting said sequence of data blocks after said processing to insert additional data;

transmitting said sequence of encrypted data blocks; and

processing to insert random data having an arbitrary data length into selected ones of said data blocks, wherein said random data having said arbitrary data length includes first random data having a first arbitrary data length and second random data having a second arbitrary data length different than said first arbitrary data length, and said processing step inserts said first random data at a beginning portion of said selected ones of said data blocks and said second random data at an end portion of said selected ones of said data blocks, wherein said sequence of data blocks is encrypted after said step of processing to insert said additional data and said step of processing to insert said random data having said arbitrary data length.



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Claims 35-41. (Cancelled).